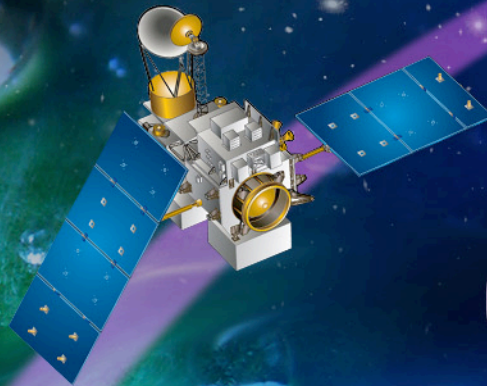


National Aeronautics and Space Administration



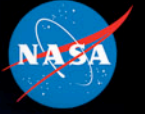
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Science Mission Directorate

Dr. Mary L. Cleave Associate Administrator for Science

November 6, 2006

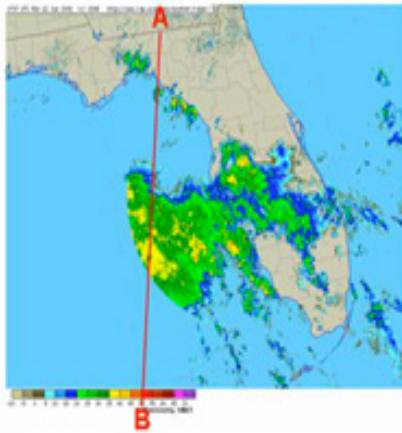
Recent Earth Science Highlights



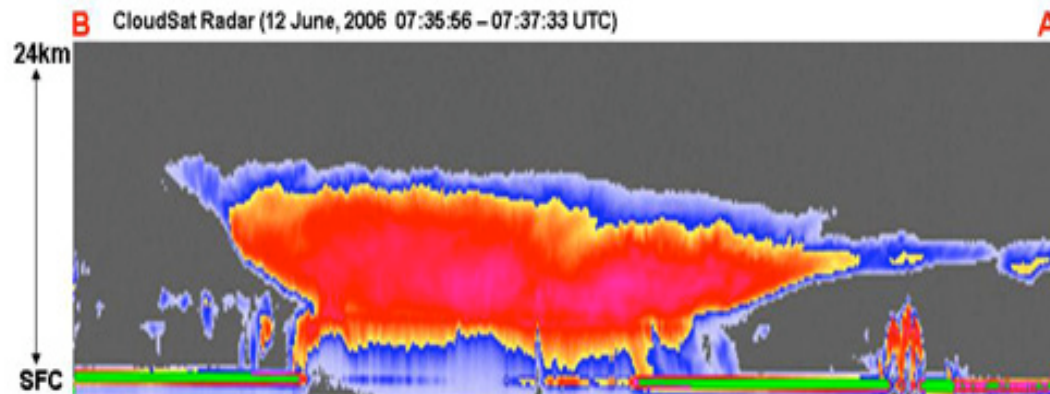
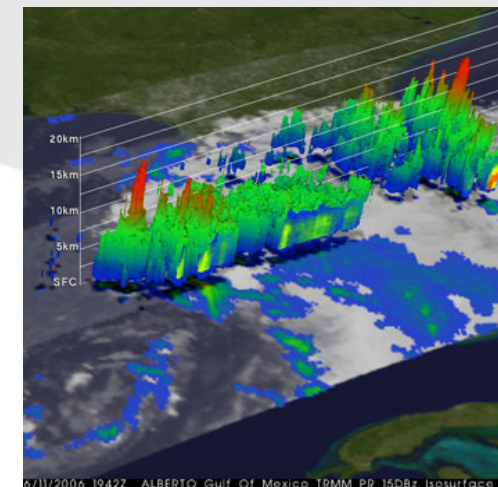
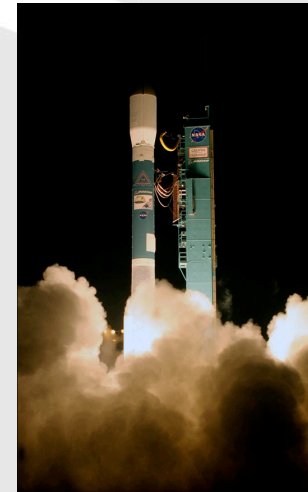
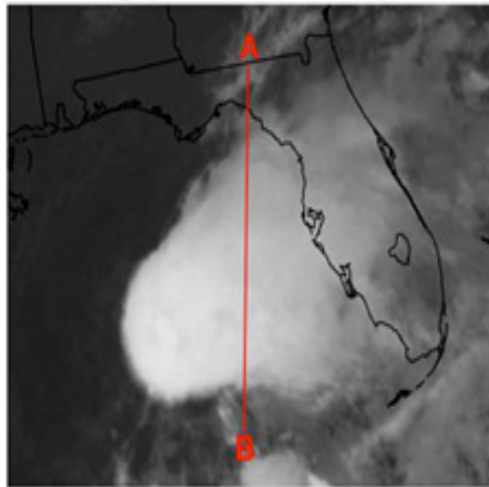
CloudSat/Calipso Launch April 28, 2006

CloudSat Sees Alberto ...

NEXRAD Radar (12 June, 2006 07:37 UTC)



GOES-12 Geostationary Satellite –
Infrared Image (12 June, 2006 07:32 UTC)



Global Water and Energy Cycle Observation Strategy



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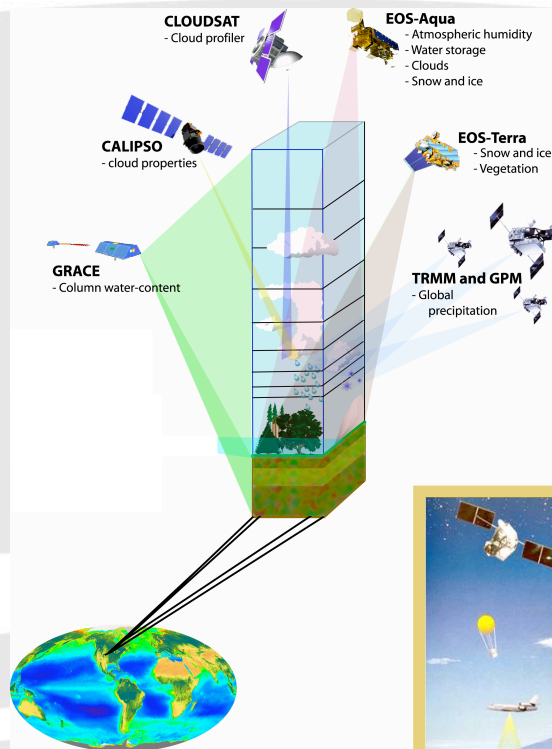
Flagship mission for NASA's Global Water and Energy Cycle (GWEC) research and applications

Important contribution to the U.S. Climate Change Science Program & the U.S. Weather Research Program

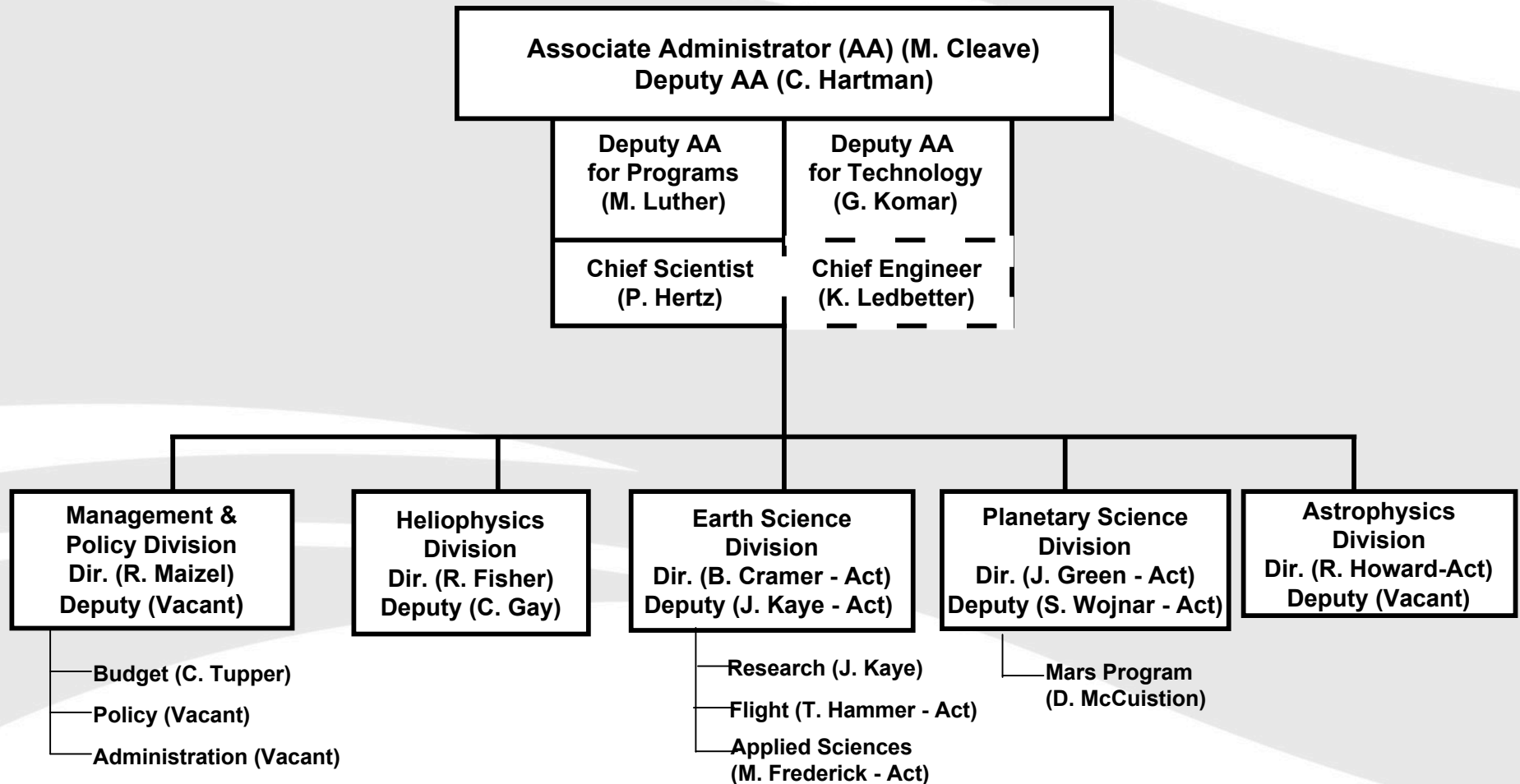
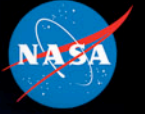
Building on

- the success of TRMM
- NASA/JAXA capabilities in precipitation measurements from space
- national and international partnerships in satellite constellation formation and ground validation

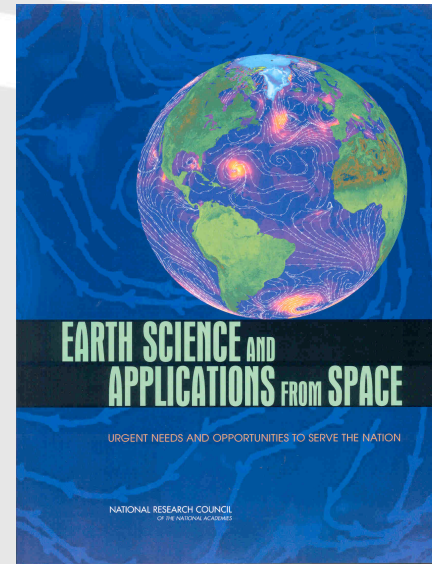
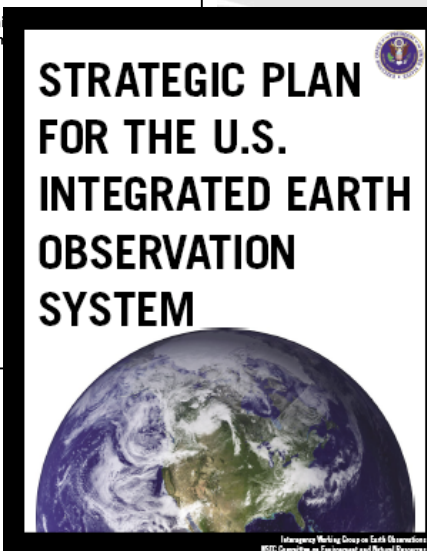
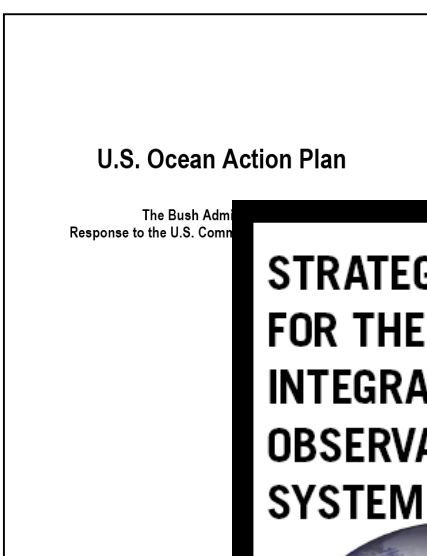
Candidate component of the emerging Global Earth Observing System of Systems (GEOSS), an international effort to provide comprehensive, long-term, and coordinated observations of the Earth



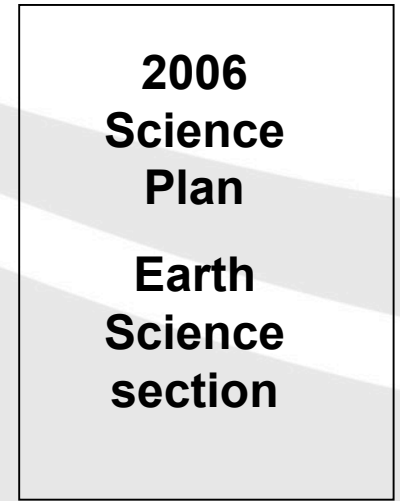
SMD Organization



2006 Science Plan



(Interim Report)



2005

Table 2.2.a Earth Science Mission Priorities and Rationale



NPOESS Preparatory Project (2009) Strategic mission - Systematic measurement	Required for continuity of several key climate measurements between EOS and NPOESS
Landsat Data Continuity Mission (2010) Strategic mission - Systematic measurement	Required for continuity of long-term global land cover change data; plan for post-LDCM acquisition operational agency in work
Ocean Surface Topography Mission (2008) Strategic mission - Systematic measurement	Required for continuity ocean altimetry; planned as part of a transition to operational agencies
Glory (2008) Strategic - Initializes a systematic measurement	Addresses high priority objective of the US Climate Change Science Program
Orbiting Carbon Observatory (2008) Competed mission - Earth System Science Pathfinder	First global measurement of CO ₂ from space
Aquarius (2009) Competed mission - Earth System Science Pathfinder	First global measurement of sea surface salinity from space
Global Precipitation Measurement (2013) Initializes a systematic measurement	Extend spatial coverage to global and temporal coverage to every 3 hours with constellation
Earth System Science Pathfinder – TBD (2014) Competed mission - 2008 solicitation for 2014 launch; subsequent TBD	<i>Could address one of the future representative mission elements below; focus and relative priority to be determined using decadal survey</i>